Exhibit B
U.S. Application No. 09/328,296
Attorney Docket No. 9632-005
Claims as Pending Following Entry of Amendments Made Herein

1. (Twice amended) A molecule comprising SEQ ID NO:8, SEQ ID NO:9, and SEQ ID NO:10, which molecule (a) binds CD40, and (b) comprises a human immunoglobulin constant domain. humanized S2C6 chimeric

2. The molecule of claim 1 comprising the amino acid sequence of SEQ ID NO:7.

3. The molecule of claim 1 which is an antibody.

4. (Amended) A molecule comprising SEQ ID NO:8, SEQ ID NO:9, and SEQ ID NO:10, which molecule (a) binds CD40, and (b) is a fusion protein comprising the amino acid sequence of a second molecule that is not an antibody. bryodin – S2C6

5. The molecule of claim 4 that comprises an amino acid sequence of bryodin (BD1) fused to SEQ ID NO:7 fused to SEQ ID NO:2.

6. (Amended) The molecule of claim 1 which is an antibody comprising a variable domain of monoclonal antibody S2C6 as secreted by the hybridoma deposited with the ATCC and assigned accession number PTA-110, and a human immunoglobulin constant region. humanized S2C6 chimeric

7. The molecule of any one of claims 1-3 which is purified.

8. (Twice amended) A protein comprising an amino acid sequence that has at least 95% identity to SEQ ID NO:7 as determined by use of the BLASTp computer program, which protein (a) binds CD40; and (b) comprises a human immunoglobulin constant domain.

9. (Twice amended) A protein, which protein (a) competes for binding to CD40 with monoclonal antibody S2C6 as secreted by the hybridoma deposited with the ATCC and assigned accession number PTA-110, (b) increases the binding of CD40 ligand to cell surface

not enabled

chimeric domain

CD40 on B cells by at least 45%, and (c) comprises a human immunoglobulin constant domain.

21. (Twice amended) A pharmaceutical composition comprising:

(a) a molecule comprising SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, or SEQ ID NO:10, which molecule (i) binds CD40, (ii) increases the binding of CD40 ligand to cell surface CD40 on B cells by at least 45%, and (iii) comprises a human immunoglobulin constant domain, in an amount effective for the treatment or prevention of cancer; and

(b) a pharmaceutically acceptable carrier.

22. (Twice amended) A pharmaceutical composition comprising:

(a) a protein, which protein (i) competes for binding to CD40 with monoclonal antibody S2C6 as secreted by the hybridoma deposited with the ATCC and assigned accession number PTA-110, (ii) increases the binding of CD40 ligand to cell surface CD40 on B cells by at least 45%, and (iii) comprises a human immunoglobulin constant domain, in an amount effective for the treatment or prevention of cancer; and

(b) a pharmaceutically acceptable carrier.

23. (Twice amended) A pharmaceutical composition comprising:

(a) a molecule comprising SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, or SEQ ID NO:10, which molecule (i) binds CD40, (ii) increases the binding of CD40 ligand to cell surface CD40 on B cells by at least 45%, and (iii) comprises a human immunoglobulin constant domain, in an amount effective for activating or augmenting an immune response; and

(b) a pharmaceutically acceptable carrier.

24. (Twice amended) A pharmaceutical composition comprising:

(a) a protein, which protein (i) competes for binding to CD40 with monoclonal antibody S2C6 as secreted by the hybridoma deposited

with the ATCC and assigned accession number PTA-110, (ii) increases the binding of CD40 ligand to cell surface CD40 on B cells by at least 45%, and (iii) comprises a human immunoglobulin constant domain, in an amount effective for activating or augmenting an immune response; and

(b) a pharmaceutically acceptable carrier.

25. The pharmaceutical composition of any one of claims 21-24 further comprising CD40 ligand. under Hirano

34. The antibody of claim 3 which is not isotype IgG1.

36. (Twice amended) A pharmaceutical composition comprising in an amount effective for the treatment or prevention of cancer or an immune disorder, or for activating or augmenting an immune response: (a) a molecule that binds CD40, which molecule increases the binding of CD40 ligand to cell surface CD40 on B cells; (b) CD40 ligand; and (c) a pharmaceutically acceptable carrier. 5C3 + Hirano

38. A pharmaceutical composition comprising the molecule of claim 1, 2, 3, 4, 5, or 6; and a pharmaceutically acceptable carrier.

39. A pharmaceutical composition comprising the molecule of claim 7; and a pharmaceutically acceptable carrier.

42. The antibody of claim 3 which is humanized.

43. The molecule of claim 2, further comprising SEQ ID NO:2.

44. (Amended) A protein comprising an amino acid sequence that comprises regions having at least 80% identity to SEQ ID NO:8, SEQ ID NO:9 and SEQ ID NO:10, respectively, as determined by use of the BLASTp computer program, which protein (a) binds CD40; and (b) comprises a human immunoglobulin constant domain.

47. (Amended) The molecule of claim 1, 2, 3, 4, 5, or 6, which increases the binding of CD40 ligand to cell surface CD40 on B cells by at least 45%.

48. (Amended) The molecule of claim 1, 2, 3, 4, 5, or 6, which increases the binding of CD40 ligand to cell surface CD40 on B cells by at least 50%.

49. (Amended) The molecule of claim 1, 2, 3, 4, 5, or 6, which increases the binding of CD40 ligand to cell surface CD40 on B cells by at least 60%.

50. (Amended) The molecule of claim 1, 2, 3, 4, 5, or 6, which increases the binding of CD40 ligand to cell surface CD40 on B cells by at least 65%.

51. (Amended) The protein of claim 8, which increases the binding of CD40 ligand to cell surface CD40 on B cells by at least 45%.

52. (Amended) The protein of claim 8 or 9, which increases the binding of CD40 ligand to cell surface CD40 on B cells by at least 50%.

53. (Amended) The protein of claim 8 or 9, which increases the binding of CD40 ligand to cell surface CD40 on B cells by at least 60%.

54. (Amended) The protein of claim 8 or 9, which increases the binding of CD40 ligand to cell surface CD40 on B cells by at least 65%.

55. The molecule of claim 1, which is a fragment of an antibody containing the binding domain of the antibody.

56. The protein of claim 8 or 9, which is a fragment of an antibody containing the binding domain of the antibody.

57. (Amended) The protein of claim 8, 9, or 44 which is purified.

58. The molecule of any one of claims 4-6 and 55 which is purified.

59. The molecule of claim 47 which is purified.

60. The protein of claim 56 which is purified.

61. The pharmaceutical composition of claim 21, 23 or 36, in which the molecule is purified.

62. The pharmaceutical composition of claim 38, in which the molecule is purified.

63. The pharmaceutical composition of claim 39, in which the molecule is purified.

64. A pharmaceutical composition comprising the molecule of claim 47; and a pharmaceutically acceptable carrier.

65. The pharmaceutical composition of claim 64, in which the molecule is purified.

66. The pharmaceutical composition of claim 22 or 24, in which the protein is purified.

67. The pharmaceutical composition of claim 25, in which the CD40 ligand is purified.

68. The antibody of claim 40, 41 or 42, which is purified.

Please add the following new claims:

69. (New) A molecule that (a) binds to CD40; (b) increases the binding of CD40 ligand to cell surface CD40 on B cells by at least 45%; and (c) comprises a human immunoglobulin constant domain.

70. (New) The molecule of claim 69 which is a protein.

71. (New) The molecule of claim 70 which is an antibody.

72. (New) The molecule of any one of claims 1-3 and 69 which is conjugated to a chemotherapeutic agent.

73. (New) The protein of any one of claims 8, 9, and 44 which is conjugated to a chemotherapeutic agent.

74. (New) The protein of claim 44 which is an antibody.

75. (New) The molecule of claim 44 which comprises which comprises SEQ ID NO:8, SEQ ID NO:9, or SEQ ID NO:10..

76. (New) The molecule of claim 44 which comprises at least 2 CDR sequences selected from the group consisting of SEQ ID NO:8, SEQ ID NO:9 and SEQ ID NO 10.

77. (New) The pharmaceutical composition of claim 21 or 23 in which the molecule is conjugated to a chemotherapeutic agent.

78. (New) The pharmaceutical composition of claim 22 or 24 in which the protein is conjugated to a chemotherapeutic agent.

79. (New) The molecule of claim 72 which is an antibody.

80. (New) A molecule which (a) comprises SEQ ID NO:7; and (b) is a single chain Fv.

81. (New) The molecule of claim 80 which is conjugated to a chemotherapeutic agent.

82. (New) The molecule of claim 69 or 71 which comprises SEQ ID NO:8, SEQ ID NO:9, or SEQ ID NO:10.

83. (New) A protein comprising an amino acid sequence that comprises regions having at least 80% identity to SEQ ID NO:8, SEQ ID NO:9 and SEQ ID NO:10, respectively, as determined by use of the BLASTp computer program, which protein (a) binds CD40; and (b) is a single chain Fv.

84. (New) The molecule of claim 83 which comprises SEQ ID NO:8, SEQ ID NO:9, or SEQ ID NO:10.

85. (New) The molecule of claim 83 which comprises at least 2 CDR sequences selected from the group consisting of SEQ ID NO:8, SEQ ID NO:9 and SEQ ID NO 10.

86. (New) A molecule which (a) competes for binding to CD40 with monoclonal antibody S2C6 as secreted by the hybridoma deposited with the ATCC and assigned accession number PTA-110; (b) comprises at least 2 CDR sequences selected from the group consisting of SEQ ID NO:8, SEQ ID NO:9 and SEQ ID NO 10; and (c) comprises a human immunoglobulin constant domain.

87. (New) The molecule of claim 86 which is an antibody.

88. (New) The molecule of claim 86 or 87 which comprises SEQ ID NO:8 and SEQ ID NO:10.

89. (New) The molecule of claim 4, wherein the second molecule is bryodin.

90. (New) The protein of claim 83 which is fused to bryodin.

91. (New) The molecule of claim 87 which is fused to bryodin.